Foreign Trade Zones and Bonded Warehouses for Luxury Goods

By

Nadya Petrova
M.B.A., IE Business School, 2012
B.A. Business Administration, American University in Bulgaria, 2007

And

A. Todd Templeton
B.S. Industrial Distribution, Texas A&M University, 2003

Submitted to the Engineering Systems Division in Partial Fulfillment of the Requirements for the Degree of

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Signature of Author.....
Master of Engineering in Logistics Program, Engineering Systems Division
May 10, 2013

Signature of Author.....
Master of Engineering in Logistics Program, Engineering Systems Division
May 10, 2013

Certified by.....
Dr. Roberto Perez-Franco
Research Associate,
Center for Transportation and Logistics
Thesis Supervisor

Accepted by.....
Prof. Yossi Sheffi
Elisha Gray II Professor of Engineering Systems, MIT
Director, MIT Center for Transportation and Logistics
Professor, Civil and Environmental Engineering, MIT

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ABSTRACT

We explore and compare the benefits of establishing and operating Foreign Trade Zones (FTZs) and Bonded Warehouses (BWs) for luxury goods in North America, using the case of the distribution network of Ralph Lauren Corporation (RLC). RLC is a luxury brand company with about $7 billion annual revenue. With over 3 million square feet of warehousing facilities in the USA, the company wants to explore potential savings from changing the legal titles of four of its existing inventory holding and transload facilities to either FTZs or BWs while considering the respective complexity and cost of setting up and managing the zones. To eliminate one of the FTZ and BW options, we measured both of their operational fits to the metrics of RLC's facilities. We found out that BWs are not a viable alternative for large-scale facilities such as RLC's because of the complicated Customs and Border Protection control they require. Furthermore, to determine which, if any, of the facilities should be transformed into FTZs, we conducted a cost-benefit analysis and evaluated the Net Present Value of the projects. As a result, we found out that it is financially beneficial to transform two of the four facilities under consideration, leave one in its current state, and explore the future strategic role of the fourth facility to determine the value of its FTZ transformation. We also suggest possible operational opportunities that may increase the FTZ benefits for the RLC North America network.

Thesis Supervisor: Dr. Roberto Perez-Franco
Title: Research Associate, Center for Transportation and Logistics

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LIST OF ABBREVIATIONS AND ACRONYMS

3PL – 3rd Party Logistics

AAEI - American Association of Exporters & Importers

BW - Bonded Warehouses

CBP - Customs and Border Police

DC - Distribution Centers

DEE – Duty Exemption Exports

FTZ - Foreign Trade Zones

GPZ - General Purpose Zone

GSC - Global Supply Chain

IOR – Importer of Record

MPF – Merchandise Processing Fee

NA - North American

NAFTA – North American Free Trade Agreement

NPV - Net Present Value

RL Direct – Ralph Lauren Direct

RLC - Ralph Lauren Corporation

ROI - Return on Investment

SKU - Stock Keeping Units

1 INTRODUCTION

Ralph Lauren Corporation (RLC) is a rapidly growing global luxury apparel company that focuses on high end clothes for men, women and children, as well as accessories, footwear, fragrances, and home furnishings. RLC's North American (NA) operations consist of 5 Distribution Centers (DC), with a total of 2,960,000 sq. ft. of warehousing, that services over 3,200 customers located in 30 countries with over 180,000 unique SKUs. From April through December of 2012, 82% of all products sold through the NA DCs were procured from China, India, and other areas across Southeast Asia, including Hong Kong, Vietnam, and Indonesia.

Due to its global supply chain complexity and the continuous operational cost pressures, RLC wants to determine if it is financially feasible and operationally efficient to qualify any or all of their NA DCs as Foreign Trade Zones (FTZ) or Bonded Warehouses (BW).

The goal of this thesis project is to build a comparative analysis of the costs, financial benefits and supply chain impacts of transitioning any or all of their current DCs to either BWs or FTZs.

Unlike the standard import procedure, where goods are subject to import duties at the point of the goods' entry into the country, goods entering through an FTZ or a BW are tariff-free until withdrawn from the activated facility (United States. Department of Homeland Security, 2011a). At the time of shipment out of the warehouse, products are subject to the import duty rates of the destination country. This postponement of duty payment can provide significant cash-flow improvements. In addition to this cash-flow improvement, additional benefits, which will be described in detail in this thesis, include import tax and fee savings.

One of the main differences between an FTZ and a BW is that FTZs are considered outside the U.S. Customs territory, therefore import entries can be consolidated and filed just prior to removal of the zone (United States. Department of Homeland Security, 2011a). While BWs are considered within U.S. Customs territory, import entries are must be filed before goods enter the warehouse and all goods remain in the U.S. Customs and Border Protection (CBP) supervision. (United States. Department of Homeland Security, 2010). Another key difference between FTZs and BWs is the range of activities that are allowed within the facilities. BWs function primarily for storage, with allowances for cleaning and sorting, while FTZs can permit product assembly, packaging, destroying, cleaning, testing, and labeling among other activities (United States. Department of Homeland Security, 2010; "About Foreign-Trade Zones," n.d.). Further differences regarding FTZs and BWs will be discussed within subsequent sections.

The above-mentioned benefits, as they pertain to RLC NA's operations, will be analyzed against the specific set-up costs for FTZs or BWs, the on-going administrative fees, and the supply chain impacts on the company's existing operations.

This research should facilitate RLC's decision-making regarding possible FTZ or BW implementations. In addition to the direct applicability to RLC, this research could be useful as a framework by other companies that face similar challenges and wish to understand the benefits of FTZs and BWs.

1.1 Ralph Lauren Overview

Founded by designer Ralph Lauren in 1967, RLC started in the necktie market, but soon expanded into men's apparel before quickly entering into women's fashion. The company boomed in the 1980s due to the popularity of the flagship brand Polo, which reflects an

American perspective and lifestyle, as well as its vast expansion into markets such as children's apparel, housewares, footwear, hats, and eyewear. During the 1990s, RLC introduced multiple brands such as Polo Sport, Ralph Lauren Jeans, and acquired Club Monaco. In 1997, the company went public and raised approximately $767 million through the initial public offering ("RLC Company Overview," n.d.).

Today, RLC manages strategic brands including Polo, Lauren, American Living, Ralph Lauren Home, Chaps, Rugby, Club Monaco, and Ralph Lauren's Premium Collection ("Ralph Lauren Investor Relations," n.d.).

RLC's Global Supply Chain annually supports:

- 200 million units
- 5 million shipments
- 10,000 points of delivery
- 20 Distribution/Fulfillment Centers
- 60 non-inventory holding DCs
- 800 factories/product licensee

In RLC's 2012 fiscal year, the company posted revenue growth of 21% to $6.9 billion and operating income growth of 23% to $1.0 billion. Growth in wholesale revenues (17%), retail revenue (27%), and licensing royalties (1%) also contributed to this strong performance in 2012, which is similar percentage-wise with RLC's strong performance and growth over the last 5 years. The company's 2007 – 2012 annual financial results, along with Thomas Reuters', a financial analyst firm, financial expectation for the next 4 years, can be seen in Figure 1 (Zonebourse, n.d.).

1.2 Ralph Lauren Supply Chain

RLC's Global Supply Chain (GSC) is organized as a global functional shared service organization, combining regional operations and capabilities. The GSC function is structured

around 4 regional platforms: North America, Latin America, Europe, and Asia. Each regional platform services the local markets, manages inventory across key channels, and is tightly

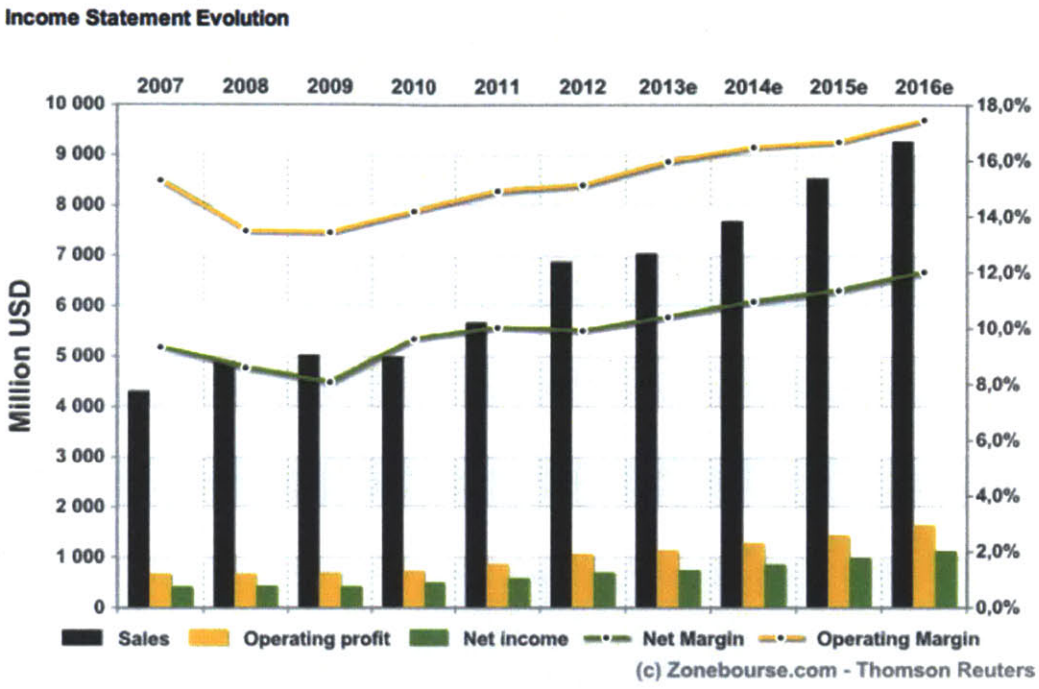


Figure 1: Ralph Lauren Annual Income Statement Results and Financial Forecast

integrated and connected within its own region. The North America region dominates with almost 80% of the unit volume, while the Latin America and Asia regions offer the biggest percentage growth opportunites. Table 1 provides the breakdown of unit volume per RLC region.

Table 1: Ralph Lauren Unit Volume by Region

Region	Units	Percentage
North America	165M	79%
Europe	30M	14%
Asia	11M	5%
Latin America	2M	1%
Total	**208**	**100%**

In addition to the regional segmentation, the company is divided into divisions, autonomous profit centers, and market channels. Each division may generate revenue from wholesale customers, retail customers, and/or direct licensing. The combination of brands, channels, and geographies—along with the large number of Stock Keeping Units (SKUs) and diversified customer base with unique requirements—pose an extremely complex challenge to RLC's operations. To combat this challenge, RLC develops customized supply chain solutions to drive customer performance.

1.3 Ralph Lauren U.S. Facilities

For this analysis we focused our research on 4 physical NA RLC facilities:

- 1 Transload Facility – OHL Transload
- 3 DCs – Beechwood, Eagle Hill, and RL Direct

The OHL transload facility is located in near the port of L.A. and is managed by a 3PL company named OHL. This is a non-inventory holding facility used to transfer merchandise from the west coast coming for Asia into RL NA facilities.

All three DCs are located in the Greensboro/High Point area of North Carolina. They service different RLC divisions across different product lines with unique supply chain strategies. Table 2 provides details by DC on the size, the volume shipped, and the number of customers.

Beechwood, with approximately 1.3M ft^2, is the largest RLC DC in North America. This facility shipped over 40 million units of product from April through December of 2012, and ships approximately 100 million units annually. The Beechwood DC services multiple RLC divisions, such as RL Menswear, RL Childrenswear, RL Womenswear, Polo, Lauren, Rugby, and Club Monaco, in both the wholesale and retail markets. This DC delivers to key customers such as

major department stores like Macy's, which represented 18% of the 2011 wholesale revenue, Ralph Lauren retail stores, and Ralph Lauren outlet stores.

Table 2: Size, Throughput, and Customer Data by DC from April 2012 – December 2012

DC Figures	Beechwood	Eagle Hill	RL Direct
Size (sq ft)	1,300,000	800,000	330,000
Number of SKUs (units)	152,000	3,100	180,000
Average Inventory (units)	10,745,791	1,417,500	3,766,432
Volume Shipped (units)	41,801,429	3,549,383	6,300,000
Number of Customers	2,443	326	N/A
Export Destinations	29	22	-
% Export by Destination	1%	29%	0%

Eagle Hill, which exports almost 30% of its product, manages the Ralph Lauren Home Collection. The Ralph Lauren Home Collection consists of both Ralph Lauren Home and Lauren Home divisions. These divisions include the following products:

- Bedding and Bath - towels, linens, pillows, and blankets
- Table Top – silverware, plate settings, and barware
- Home Décor – rugs, lighting, candles and pet accessories

RL Direct, the newest expansion facility, handles the company's e-Commerce sales. This is the smallest of the three DC's in the North Carolina area, but also manages the highest number of unique SKUs. The nature of the e-Commerce market requires this facility to hold and ship small volumes of many different products that span most of RLC brands. Currently, RL Direct does not export or import any products. All products come from RLC's other U.S. facilities and all shipments are made to destinations within U.S.

1.4 Thesis Overview

The subsequent chapters of this thesis are structured as follows: Chapter 2 reviews the literature regarding both FTZs and BWs, including key definitions of terminology used throughout this

thesis and examples of FTZ and BW implementations. Chapter 3 discusses the methodology used to perform the comparative analysis, while Chapter 4 walks through the actual data collection and analysis. The final chapter describes the results from the analysis and the final conclusion and recommendations.

2 LITERATURE REVIEW

In this literature review, we summarize existing research related to FTZs and BWs and their impacts on cash flow management and supply chain management. In the first section, we provide explanations of relevant terminology and definitions. In the second section, we point out publications related to the implementation costs of both FTZs and BWs. In the third section, we provide a comparison between the financial benefits of FTZs and BWs. We then summarize literature on existing FTZ and BW implementations, since these past experiences served as a guideline for the data analysis part of our thesis.

The publications that we found in professional journals focus on the implications of FTZs and BWs on the economic development of countries and regions. Because we could not find academic publications related to the effects on the operations of companies that function out of FTZs and BWs, we turned to trade publications, white papers, and government reports.

2.1 Terminology and Definitions

The following definitions from the CBP are important terms that will be used throughout this thesis.

Customs Duty – a tariff or tax imposed on goods when transported across international borders

Goods Entry – filing of paper or electronic documents with the CBP to declare the value, classification, and duty rate for imported merchandise

Importer of Record – entity responsible for filing the goods entry and paying the assessed import duties

Port of Entry – a port in the U.S. where customs officials are located to oversee the entry of merchandise

Customs Duty – a tariff or tax imposed on goods when transported across international borders

Merchandise Processing Fee – a fee required at the time of entry paid to the Customs and Border Protection for processing the entry documents for imported shipments

Harbor Maintenance Fee – a port use fee for unloading cargo from a commercial vessel

Customs Brokerage Fee – a fee charged by an agent to facilitate the entry of the goods

Country of Origin – country of manufacture, production, or growth of any article of foreign origin entering the U.S. customs territory

Duty Drawback – a refund, reduction, or waiver in whole or in part of customs duties assessed or collected upon importation of materials that are subsequently exported

2.1.1 Foreign Trade Zone Definition

Also known as Free Trade Zones, FTZs are locations in or near a port of entry that are legally considered outside of Customs territory for the purpose of entry procedures and payment of duties (What are Foreign Trade Zones?, 2011). FTZs were first established under the Foreign-Trade Zone Act of 1934 to "expedite and encourage foreign commerce and other purposes" (United States. Department of Homeland Security, 2011a). The authority for establishing an FTZ

is granted by the Foreign Trade Zones Board, a part of the Import Administration within the International Trade Administration of the U.S. Department of Commerce (United States. Department of Homeland Security, 2011a). Though the FTZ Board manages the establishment, zones are managed by the "grantee", a local public or non-profit organization required to operate the zone uniformly across all companies (United States. Department of Homeland Security. Foreign Trade Zone Board, 2012a).

There are two different types of FTZs – General Purpose Zones (GPZs) and Subzones. GPZs are areas open to the general public. Subzones are private sites established as a result of the transformation of a company's facilities into an FTZ. Both types of FTZ are operationally the same. The Subzone is a legal title transfer that allows companies to transform their existing facilities into an FTZ while avoiding the huge expenses related to closing down and relocating their existing warehouses to GPZs (United States. Department of Homeland Security, 2011b).

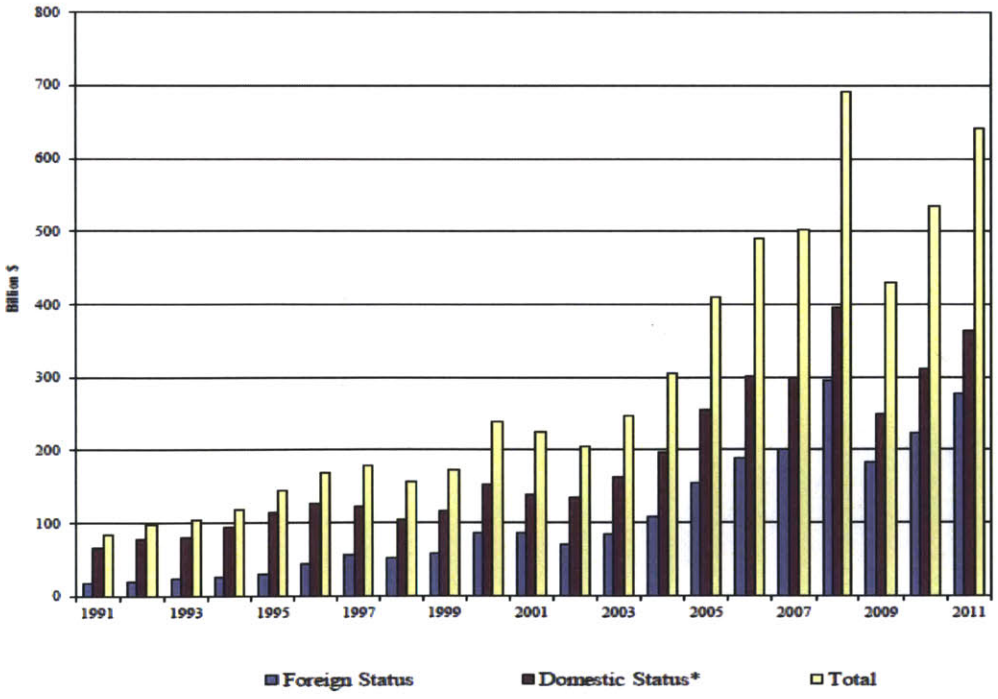


Figure 2: Foreign-Trade Zone: Merchandise Received 1991-2011

In 2011 the value of shipments into the 171 active U.S. FTZs was over $640 billion, up from the $534 billion in 2010. Figure 2 provided by the Foreign Trade Zone Board shows the value of both foreign and domestic merchandise entered in FTZs from 1991 to 2011. This figure also shows the exceptional growth of FTZs over the last twenty years. The main industries utilizing these zones included: oil and petroleum, automotive, textile and footwear, electronics, and pharmaceutical (United States. Department of Homeland Security. Foreign Trade Zone Board, 2012a).

2.1.2 Bonded Warehouse Definition

The CBP defines BWs as buildings or areas where dutiable merchandise can be stored and undergo physical manipulation without payment of duties for up to 5 years from the date of importation. In a BW the warehouse administrator incurs a liability for the merchandise under a warehouse bond, a bond issued to guarantee the payment of customs fees. When a warehouse receives the status of a BW, the Port Director defines the amount payable based on the purpose for the bond. The minimum amount per building or area is $25,000. There are eleven different classes of BWs. These classes range from government, private, and public facilities used primarily for the storage of material to facilities that allow, under supervision by the customs authority, cleaning, sorting, and repackaging but exclude manufacturing (United States. Department of Homeland Security, 2012b).

2.2 Implementation Costs

In this section, we present information found on U.S. CBP's official website in order to understand better the costs related to the implementation of both FTZs and BWs. We also

include our findings from an interview we had with Randy Campbell and Corey Campbell, professional FTZ consultants.

2.2.1 Implementation Costs – Foreign Trade Zone

Set-up costs are usually one-time costs incurred during the application process, which requires CBP approval, and the FTZ activation process. Set-up costs include FTZ Board Application Fee, Preparation of FTZ Application, Grantee Application Processing Fee, Grantee Activation, Grantee Manufacturing Request Processing Fee (if manufacturing is planned in the FTZ), Operations Manual/Training, Inventory System, and Security.

Administrative costs are usually incurred on an on-going basis. They are related to Operator Bond, Grantee Annual Fee, Administration/Operation, Inventory system, Brokerage, and Consultant/Attorney.

2.2.2 Implementation Costs - Bonded Warehouse

Set-up requirements for BWs differ from FTZs in that the Port Director determines the amount of the bond depending on the purpose of the bond. The minimum bond amount is $25,000. The following formula was used in determining the limit of liability according to the purpose for which the bond is issued (United States. Department of Homeland Security, 1991):

> If duties and taxes are between $0 and $1,000,000, the bond limit liability will be fixed in multiples of $10,000 nearest to 10 percent of duties, taxes, and fees paid by the importer.
>
> If duties and taxes are > $1,000,000, the bond limit liability will be fixed in multiples of $100,000 nearest to 10 percent of duties, taxes, and fees paid by the importer.

Currently, the following formula is used to estimate the limit of liability that a trader must be responsible for, in case of using a BW: "1% of the maximum inventory level" (Randy Campbell, Corey Campbell, personal communication, April 16, 2013).

Set-up costs for BWs are related to Application for BW, Warehouse Survey, Background Inquiry, and Approval/Denial of Application. The change of a BW's purpose is allowed but it involves additional costs associated with Alteration, Relocation, Voluntary Suspension, or Discontinuance (United States. Department of Homeland Security, 2012b).

2.3 Financial Benefits

This section showcases publications related to the benefits and the differences of FTZs and BWs.

2.3.1 Financial Benefits - Foreign Trade Zone

The panelists at the conference of the American Association of Exporters & Importers (AAEI) discussed savings related to operations in FTZs such as duty deferral, duty exemption on exports, duty exemption through scrap, duty reduction through inverted tariff relief, brokerage fee, and MPF reductions ("Five Ways," 2006). These savings are defined below.

Duty Deferral – Within an FTZ, duties are delayed until product is shipped out of the FTZ and into the U.S. customs territory. This postponement of duty payment can provide a significant positive cash-flow impact.

Duty Exemption through Exports – Product re-exported out of an FTZ is exempt from import duties. This duty exemption can be a direct cost savings.

Duty Exemption through Scrap – Product scrapped or discarded within an FTZ is exempt from import duties. This duty exemption can be a direct cost savings.

Duty Reduction – Also known as an Inverted Tariff, it is used within Manufacturing FTZs where duty rates can be applied to the lessor of the raw materials entered into the zone or the finished material withdrawn from the zone.

Brokerage Fee Reduction – FTZs allow weekly consolidated entries, thus reducing the total number of entries and the incurred brokerage fees.

MPF Reduction - FTZs allow weekly consolidated entries, thus, reducing the total number of entries and the incurred MPF.

Mongelluzzo (2003) examines the benefits of FTZs for non-manufacturing importers. It discloses that the main savings opportunity comes from MPFs because the company can delay entering the Customs territory for up to a week. Instead of paying MPFs every time a shipment arrives, an importer can consolidate the goods in an FTZ and pay the MPF once.

2.3.2 Financial Benefits - Bonded Warehouse

The main savings of BWs, resulting from import duty postponement and re-exporting of goods, are duty deferral and duty exemption. BWs do not affect costs related to MPFs and customs brokerage fees as entries are not consolidated. BWs are considered to be on Customs territory (United States. Department of Homeland Security, 2012b). Thus, all imported shipments arriving in a BW owe immediate MPFs for their documents to be processed by the CBP.

2.3.3 Key Differences between Foreign Trade Zones and Bonded Warehouses

Figure 3 is derived by information collected from the Economic Development Council for Central Illinois and the Greater Indianapolis Foreign Trade Zone ("FTZ vs. Bonded Warehouse," 2013; "Bonded Warehouse versus FTZ," 2013).

Foreign Trade Zones vs. Bonded Warehouse		
Function	**Foreign Trade Zone**	**Bonded Warehouse**
Customs Entry	A Foreign Trade Zone is not considered within customs territory. Customs entry is filed when goods are removed from the FTZ.	A bonded warehouse is within the US Customs territory. Customs entry must be filed for goods to enter the warehouse.
Customs Bond	A Bond is not required for goods in a FTZ. Admissions to the zone are covered under the FTZ operators Customs Bond.	Customs Bonds are required for all warehouse entries.
Permissible Cargo	Foreign and domestic goods may be placed in a FTZ.	Only foreign goods may be placed in a bonded warehouse
Payment of Duty	Duties are due only upon entry for U.S. consumption	Duties are due prior to release from bonded warehouses.
State & Local Inventory Tax	Foreign goods are not taxed as well as domestic goods that are to be exported are not taxed.	All goods are taxed.
Manufacture of Goods	Manufacturing is permitted within the FTZ. Duty is payable on either the imported components or the finished product, whichever has the lower rate. There is no duty on waste material or on value added manufacturing such as labor, overhead and profit.	Manufacturing is not permitted in a bonded warehouse.
Appraisal and Classification	The tariff rate and the value of goods may be determined either at the time of admission into a FTZ or when goods leave at the user's discretion.	Tariff rates and the value of goods is determined immediately upon entering a bonded warehouse.
Storage Period	Unlimited	Not to exceed five years
Permitted Activity	Goods may be: sorted, destroyed, cleaned, graded, mixed with foreign or domestic goods, labeled, assembled, manufactured, exhibited, sold and repacked.	Goods may only be cleaned, repackaged and sorted under customs supervision. Duty is owned on entire shipment entering a bonded warehouse including waste and damaged goods.
Domestic Goods	May be admitted without customs permit and co mingled with foreign goods.	May not be admitted.
Control of Goods	FTZ has full control of goods 24 hours a day.	Customs has primary control of goods. The goods can only be inspected and transferred during regular working hours in a bonded warehouse.
Movement of Goods	Movement of goods is relatively unrestricted in and out of an FTZ.	Movement of goods is limited in a bonded warehouse. Specific customs approval is required for each movement.

Figure 3: Key Differences between FTZs and BWs

This figure shows some of the main differences between and FTZ and BW. For example only foreign cargo is allowed within a BW while both foreign and domestic cargo may be placed in an FTZ. Also manufacturing is not allowed within a BW, but with CBP approval, manufacturing can occur in an FTZ.

2.4 Examples of Existing Implementations

Neville (2010) showcases that in practice the major FTZ-related savings come from MPFs and duty deferrals. It estimates that VP Corporation's annual savings are 55 percent from MPFs and 44 percent from duty deferral. Transforming a DC into an FTZ subzone, Swatch Group reported savings from "lower customs broker charges, MPF, and paperwork" to be 70 to 75 percent of their total savings (Neville, 2010). Neville also points out that FTZ operations have become the industry standard among the watch and jewelry brands.

Hirotoshi Otsubo gave an example of FTZ effects on Reebok International's operations in his thesis for the University of Tokyo (Otsubo, 2005). Reebok specializes in the design and marketing of footwear and sports apparel. To offset U.S. quotas on Chinese-made products and customs regulations, Reebok established a network of FTZs around the world. Otsubo points out that Reebok benefits the most from "duty deferral, volume reduction [product destruction], and the simplification of foreign trade procedures" as the company performs its quality control and product destruction out of FTZs (Otsubo, 2005).

We are not able to identify any publications showcasing the implementation of BWs in the apparel sector. Furthermore, we could not find white papers or articles detailing the benefits of operating a large-scale distribution business out of a BW in any other industry.

3 METHODOLOGY

To determine the feasibility of implementing either an FTZ or a BW across all or part of RLC's current U.S. distribution network, we compared the implementation costs with the respective financial benefits, as well as other potential supply chain or network impacts. This section

describes the processes and equations we used to estimate the implementation and administration costs, the cost savings and cash-flow improvements, and the supply chain impacts. We then discuss our methods to consolidate these factors to help RLC's future distribution decisions.

We began this analysis by collecting data from four of RLC's North America (NA) facilities: Beechwood, Eagle Hill, RL Direct, and OHL Transload. Next, we estimated the costs and savings of establishing and managing each facility with the new legal status. Third, we applied a cost-benefit analysis comparing the representative costs and savings to determine whether RLC should transform any of its current NA DCs into FTZs or BWs. The cost-benefit analysis helped to determine financially which DCs, if any, should be transformed. Finally, we consolidated our findings to make recommendations and advise further considerations.

3.1 Implementation Costs

To calculate the cost side of the cost-benefit equation, we investigated the costs related to set-up and manage FTZs and BWs. The U.S. CBP is the government agency responsible for declaring the requirements for setting up and managing either an FTZ or a BW. In this analysis, we used the latest postings on the U.S. CBP website. However, as these requirements are subject to change, the future outcome of a similar analysis may vary.

The main set-up costs of FTZs and BWs are related to the application for change to FTZ/BW status, the FTZ/BW activation with the U.S. CBP, and the implementation of FTZ/BW management software. To facilitate the FTZ/BW application and activation activities, companies contract consulting firms. However, the set-up and administration costs for FTZs/BWs vary tremendously based on the consulting fees of those organizations. To collect data related to those

costs, we approached five companies specializing in trade facilitation and 3PL services. We were able to collect data through phone interviews from two of these companies:

Foreign-Trade Zone Corporation - a consulting firm with clients in over 40 states specializing in FTZ/BW application and activation located in Mobil, AL

Campbell Trade Group, Inc. - a foreign-trade zone consulting and economic development firm located in York, PA

Conducting further research online, we also collected costs data from a feasibility analysis posted on the website of IMS Worldwide, Inc. – a FTZ and industrial park consulting firm located in Webster, TX. In our analysis we also used RLC's quoted OHL FTZ implementation costs as a fourth source of reference to set-up and administrative costs. All four sources were consistent in defining the cost range, which is large, and the showed the actual costs can vary significantly.

3.2 Financial Benefits

To determine the financial benefits, we solicited historic data, related to the importing, exporting, and warehousing of each DC, directly from RLC. This historic data is assumed to be reflective of future operations and is used to calculate the benefits outlined in this section.

Table 3: Importer of Record Breakdown

Importer of Record	
American Living Childrenswear	Leathergoods and Accessories
American Living Dresses	Polo Jeans Co.
American Living Menswear	Polo Retail Corporation
American Living Womenswear	Ralph Lauren Childrenswear
Chaps Childrenswear	Ralph Lauren Corporation
Chaps Dresses	Ralph Lauren Footwear, Inc.
Chaps Ready To Wear	Ralph Lauren Home Collection
Club Monaco	Ralph Lauren Media
Lauren Dresses	Ralph Lauren Wormenswear
Lauren Ralph Lauren	Rugby by Ralph Lauren Corporation

For each RLC facility, data was consolidated into categories based on Importer of Record (IOR). Consolidating the details by IOR helped standardize the estimation process across a large number of SKUs and unit volumes. Table 3 provides the list of the specific IORs.

3.2.1 Financial Benefits – Foreign Trade Zone

As described in the literature review, there are five key opportunities to reduce costs and improve cash-flow when utilizing an FTZ. These savings include duty deferral, duty exemption, duty reduction, MPF reduction, and brokerage fee reduction. We used Equations 1 through 6 to determine the savings at each facility with (i) indicating each IOR category. The following equations were derived from standard equations found within trade publications and white papers altered to align with the RLC data collection process (Alvarado, 2011; "Five Ways," 2006).

Key Variables:

DD = *Duty Deferral*
DE_E = *Duty Exemption through Exports*
DE_S = *Duty Exemption through Scrap*
DR_i = *Duty Reduction*
MPF = *Annual MPF Savings*
BF = *Brokerage Fee Savings*
V_i = *Annual Entry Value*
r_i = *Weighted Average Duty Rate*
CC = *Cost of Capital*
$COGS_i$ = *Annual Cost of Goods Sold*
Δ_i = *Average Inventory*
e_i = *Percent Value of Exports*
s_i = *Percent Value of Scrap*
r_{Fi} = *Weighted Average Finished Goods Duty Rate*
F = *Annual MPF Fees*
E = *Annual Number of Custom Entries*
B = *Broker Fee*

Duty Deferral:

$$DD = \sum_{i-1}^{n} V_i \frac{\Delta_i}{COGS_i} r_i CC \qquad (1)$$

Duty Exemption through Exports:

$$DE_E = \sum_{i=1}^{n} V_i e_i r_i \qquad (2)$$

Duty Exemption through Scrap: $$DE_s = \sum_{i=1}^{n} V_i s_i r_i \quad (3)$$

Duty Reduction/Inverted Tariffs: $$DR_i = \sum_{i=1}^{n} V_i (r_i - r_{Fi})(1 - e_i)(1 - s_i) \quad (4)$$

Merchandise Processing Fee Savings: $$MPF = F - (52)(485) \quad (5)$$

Brokerage Fee Savings: $$BF = (E - 52)B \quad (6)$$

3.2.2 Financial Benefits – Bonded Warehouse

BWs provide the same advantages as FTZs with Duty Deferral (Equation 1) and Duty Exemption through Exports (Equation 2). Therefore these equations will be the same, with the restriction that the storage period cannot exceed five years. The other FTZ savings outlined in the previous section do not apply to BWs.

3.3 Cost Benefit Analysis

In order to evaluate the transition to either an FTZ or a BW for each DC, we calculated the annual Net Benefits, total benefits minus the total expenses, for each of the four RLC facilities. These annual Net Benefits were then used to calculate the Net Present Value (NPV) and Discounted Return on Investment (ROI) over a three-year period. NPV is a method of calculating the expected net monetary gain or loss from a project by subtracting the present value of the cash outflows from the present value of the cash inflows at the present point in time.

Equation 7 shows the formula used to calculate the 3 year NPV for the Cost Benefit Analysis.

$C_o = Initial\ Investment$ $\qquad$ $r = Discount\ Rate$

$C = Cash\ Flow$ $\qquad$ $t = Time$

$$NPV = -C_o + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \ldots + \frac{C_t}{(1+r)^t} \quad (7)$$

The Discounted ROI is simply calculated as the discounted benefits minus the discounted costs divided by the discounted costs.

The Cost Benefit Analysis provides RLC with an overall estimate of the financial return, based on the total costs and savings for the three-year period. Though each company may have internal metrics to determine required return to move forward with a project, IMS Inc.'s feasibility analysis suggests that the return on investment in an FTZ facility should be at least 200% (Spencer, n.d.). We were not able to identify a similar break-even point suggestion for a BW implementation.

3.4 Supply Chain Impacts

In addition to the financial feasibility of FTZs and BWs, we explored how moving to an FTZ or BW could impact RLC's Supply Chain and NA Network. These impacts could include adjustments to lead time, inventory, transportation, and network flow. Since we were unable to find any previous research in this area, we discussed these possible impacts with FTZ/BW experts. We further explored how RLC could use the advantages of FTZs or BWs in the U.S. to service customers in Mexico and Canada.

4 DATA COLLECTION AND ANALYSIS

This section, we describe the data gathered and analyzed to determine the feasibility of implementing FTZs or BWs within four of RLC's U.S. facilities. These data include the

implementation costs of both establishing and managing an FTZ or a BW, financial benefits, and supply chain impacts.

4.1 Implementation Costs – Foreign Trade Zone

Consulting experts play an important role in assisting companies with the application, activation, and software implementation processes of FTZs. As described in the previous section, we collected information from consulting firms that specialize in FTZ implementations. This data was collected through multiple methods including interviews, a recent feasibility analysis, and a recent FTZ set-up request for quotation (RFQ) specifically for RLC's OHL facility. These specialists confirmed that the main set-up costs of FTZs are related to the application for change to FTZ status, the FTZ activation with the CBP, and the implementation of FTZ management software and the main on-going costs are related to the personnel required for FTZ administration. The ranges of data for these costs do vary by FTZ implementation, but the ranges provided by each of the consultants were consistent. Table 4 provides the range of both set-up and on-going costs related to implementing an FTZ.

Table 4: FTZ Implementation Cost Range

FTZ Implementation Costs	**Cost per one facility**	
FTZ Set-up Costs (on-time)	Minimum	Maximum
Application Fees	$ 4,000	$ 12,000
Activation Fees	$ 25,000	$ 300,000
Software/IT Integration	$ 75,000	$ 100,000
Total Set-up Costs	$ 104,000	$ 412,000
FTZ Administration Costs (annual)	Minimum	Maximum
Administration Personnel	$ 45,000	$ 90,000
Software/IT Maintenance	$ 20,000	$ 25,000
Operator	$ 1,000	$ 10,000
Total Administration Costs	$ 66,000	$ 125,000

Table 5 shows the size scale of FTZs located within FTZ 121 in Albany, NY. RLC's Greensboro facilities are substantially larger than the highest size scale of 250,000 square feet with Beechwood – 1,300,000 square feet, Eagle Hill – 800,000 square feet, and RL Direct – 300, 000 square feet. Thus, we applied the highest set-up and on-going FTZ costs whenever their cost drivers are based on the facility's size. When evaluating OHL's case, we applied the specific costs that RLC provided to us in regard to OHL's FTZ transformation.

Table 5: Capital District Regional Planning Commission Operator Fees

Operator Fees for All Sites Activated for Warehousing Only	
Annual Fee Schedule for Activated Operators with Warehousing Authority	
Less than 20,000 sq. ft. of Activated Zone Space	$ 1,000
20,000 – 50,000 sq. ft.	$ 2,500
>50,000 – 100,000 sq. ft.	$ 5,000
>100,000 – 250,000 sq. ft.	$ 7,500
More than 250,000 sq. ft.	$10,000
Includes Traditional General-Purpose Zone, Magnet, Usage-Driven, & Subzone Sites	

One of the data collection phone interviews we had was with Craig Pool, the FTZ Corporation founder. According to Pool, the total FTZ set-up costs for zone application, activation with the CBP, and software implementation can vary between $75,000, using a small scale consulting firm, and $250,000, contracting a leading consulting firm. According to Randy Campbell, one of the Campbell Trade Group founders, the FTZ application fee is a one-time charge that varies between $7,500 and $12,000. This range includes the FTZ Board Application Fee, the preparation of FTZ Application, and the Grantee Application Fee. Because multiple sites within the same zone can be on the same application, each additional site would cost approximately $2,500 for the additional preparation of the application. For this analysis, based on the expert's feedback, we estimate the FTZ application fee to be $7,500 for each of RLCs facilities because

non-production facilities, such as RLC's, require a lower application fee than that for manufacturing facilities.

The CBP activation fee, is a one-time cost that consultants charge for their services, including activation request, site inspection, site plan layout, and FTZ procedures manual. This cost does not vary according to the size of the facility to be activated as an FTZ. The activation of a single property is around $25,000, depending on the number of employees that need to be trained to operate the FTZ. Activating an additional property within the same zone would cost 25% of the initial activation fee. The exact cost for the activation of each additional property is related to the personnel training that is required to manage an FTZ. Given the large scale of the RLC facilities and the big number of employees at each facility, we assign $100,000 for FTZ activation and employee trainings.

The largest cost driver in FTZ establishment is the implementation of FTZ management software. Software implementation costs are based on the number of transactions accounted for by the software. Transactions refer to each physical movement of goods within, in, or out of an FTZ. The average software implementation cost, according to Randy Campbell, is $100,000 for the system set-up and $20,000 to $25,000 annually for system maintenance. We assign $100,000 per DC because of their size and operational complexity. Although we evaluate each DC's transformation into an FTZ as a separate project, additional savings from software implementation are expected. When implementing FTZ management software in multiple properties within the same site, a company has the opportunity to run one software implementation if it tracks inventory in the same system across the multiple properties prior to transforming the site into an FTZ. However, if the company operates different inventory tracking systems in each property, it has to undergo separate software implementations in each property.

Due to the large number of transactions within RLCs facilities we estimate the annual system maintenance cost to be $25,000. Table 6 provides the estimated FTZ implementation costs for each facility.

Table 6: FTZ Set-up and Administrative Costs Estimated by RLC DCs

FTZ Implementation Costs	Beechwood	Eagle Hill	RL Rirect	OHL
FTZ Set-up Costs (on-time)				
Application Fees	$ 7,500	$ 7,500	$ 7,500	$ -
Activation Fees	$ 100,000	$ 100,000	$ 100,000	$ 31,250
Software/IT Integration	$ 100,000	$ 100,000	$ 100,000	$ 68,900
FTZ Administration Costs (annual)				
Administration Personnel	$ 90,000	$ 90,000	$ 90,000	$ 94,200
Warehousing	$ -	$ -	$ -	$ 120,000
Software/IT Maintenance	$ 25,000	$ 25,000	$ 25,000	$ 25,000
Operator	$ 10,000	$ 10,000	$ 10,000	$ 10,000

The ongoing management of an FTZ requires a dedicated FTZ administrator, whose salary varies between $75,000 and $90,000 annually. This person is responsible to manage the daily FTZ operations and ensure the company complies with all FTZ regulations. In addition to the administrator fee, companies will incur a Grantee Annual Fee and could incur additional warehousing fees if the facility is managed through a 3PL and additional space is required. We assign the maximum FTZ administrator salary of $90,000 based on the complexity of managing large scale facilities of RLC's size.

4.2 Implementation Costs – Bonded Warehouse

Establishing a BW requires an application to the local CBP port director, a certificate showing the building is fit for fire insurance and the blueprint of the space to be bonded. While interviewing the consulting experts, both of them made it clear that BWs are not a feasible option for a facility of a size similar to the RLC's facilities. BWs are more suitable for international

consolidation centers or cross docks that require limited material handling. This allows the final export decision to be postponed while duty is deferred. Within a BW, product is under constant CBP supervision and no receipt or goods issue is allowed within the warehouse without customs approval (Chapter 7: Free Trade Zones, 2004). We were unable to further explore the cost details of setting up a BW facility as there were no related examples the experts could provide.

According to Craig Pool, operating BWs imposes strong managerial limitations and "no large scale DCs operate out of BWs." BWs' operations require stringent reporting of incoming and exiting items to the CBP. According to the Bonded Warehouse Manual for Customs and Border Protection Officers and Bonded Warehouse Proprietors, the CBP has the authority to conduct physical checks of the activities in the BW (United States. Department of Homeland Security, 2012b). A search in a BW can be done at any time without advance notice and without a warrant. The BW proprietor should provide all necessary equipment for these searches, such as equipment for weighing, gauging, and measuring. Compliance reviews are frequent and are conducted by the port office to physically check all transaction within a BW to make sure that the BW is compliant with the existing regulations. Compliance reviews are conducted without prior notification and at any time the CBP considers necessary. Audits are another form of stringent control over BWs. These audits are very detailed checks of the proprietor's financial and inventory records. Unlike compliance reviews, audits are announced by an advance notice. Although audits are not as frequent as compliance reviews, they are much more thorough and take much more time, up to a month (United States. Department of Homeland Security, 2012b). Besides for the operational complications and limitations, the BW administration requires "a lot more time" in comparison to managing an FTZ, which boosts man-hour costs.

4.3 Financial Benefits – Foreign Trade Zone

Based on the findings in the previous section, BWs are not deemed a feasible option for RLCs facilities. Thus, we focused our financial benefits data collection on FTZs. Working closely with our contacts at RLC, we collected the key information outlined in Section 3.2.1. The historic data used for the financial benefits came from a number of different RLC IT systems across multiple time periods. For this analysis we assume all time periods are weighted equally throughout the course of a year, without any major seasonality or variation. This allows the data points to be averaged over each time period and annualized to obtain a serviceable estimate. The following descriptions outline the origins and time periods for the collected data.

Estimated Annual Entry Value: We annualized data from eFocus, a system that tracks import shipments and manages customs, from April 2012 through February 2013. The total product value of entries was $2.1 billion. The Beechwood and OHL facility accounted for almost 75% of the total product value that was entered into the US over the course of a year. Table 7 below shows in detail the total entry value in each warehouse facility and the corresponding IOR.

Estimated Number of Annual Entries: Using a Customs Entry Detail Report, provided by RLC's freight forwarder, that covered January 2012 to December 2012, we estimate the number of ocean shipment entries per facility. The annual number of entries from ocean shipments for RLC's U.S. operations was approximately 7200. A third of the entries went through facilities other than those reviewed in this analysis, including RLC's Chino and Buena Park facilities as well as direct shipments to customers. Table 8 below shows the annual number of entries per DC and the importers of record corresponding to each entry.

Table 7: Estimated Annual Entry Value (in thousands of dollars)

Importer of Record	Beechwood	OHL Transload	Eagle Hill	RL Direct	Other	Total Entry
American Living Childrenswear	$ -	$ -	$ -	$ -	$ 119	$ 119
American Living Dresses	$ -	$ -	$ -	$ -	$ 5,971	$ 5,971
American Living Menswear	$ -	$ -	$ -	$ -	$ 760	$ 760
American Living Womenswear	$ -	$ -	$ -	$ -	$ 702	$ 702
Chaps Childrenswear	$ -	$ -	$ -	$ -	$ 27,040	$ 27,040
Chaps Dresses	$ -	$ -	$ -	$ -	$ 9,395	$ 9,395
Chaps Ready To Wear	$ -	$ -	$ -	$ -	$ 60,109	$ 60,109
Club Monaco	$ 14,084	$ 28,325	$ -	$ -	$ -	$ 42,409
Lauren Dresses	$ 2,617	$ 22,633	$ -	$ -	$ -	$ 25,250
Lauren Ralph Lauren	$ 36,770	$ 144,138	$ -	$ -	$ -	$ 180,908
Leathergoods and Accessories	$ 0	$ 28,110	$ -	$ -	$ 24,010	$ 52,120
Polo Jeans Co.	$ -	$ -	$ -	$ -	$ 2,869	$ 2,869
Polo Retail Corporation	$ 153,048	$ -	$ -	$ -	$ 1	$ 153,048
Ralph Lauren Childrenswear	$ 78,605	$ 119,804	$ -	$ -	$ 27,825	$ 226,233
Ralph Lauren Corporation	$ 379,738	$ 497,016	$ -	$ -	$ 106,025	$ 982,779
Ralph Lauren Footwear, Inc.	$ 4,101	$ 6,721	$ -	$ -	$ 83,914	$ 94,736
Ralph Lauren Home Collection	$ -	$ 15,297	$ 32,489	$ -	$ -	$ 47,787
Ralph Lauren Media	$ -	$ -	$ -	$ 160,274	$ -	$ 160,274
Ralph Lauren Wormenswear	$ 5,672	$ 16,628	$ -	$ -	$ -	$ 22,300
Rugby by Ralph Lauren	$ 1,410	$ 10,788	$ -	$ -	$ -	$ 12,198
Total	$ 676,045	$ 889,459	$ 32,489	$ 160,274	$ 348,739	$ 2,107,006

Table 8: Estimated Number of Ocean Shipment Entries by Facility

Importer of Record	Beechwood	OHL Transload	Eagle Hill	RL Direct	Other	Total Entry
American Living Childrenswear	-	-	-	-	68	68
American Living Dresses	-	-	-	-	95	95
American Living Menswear	-	-	-	-	76	76
American Living Womenswear	-	-	-	-	53	53
Chaps Childrenswear	-	-	-	-	342	342
Chaps Dresses	-	-	-	-	122	122
Chaps Ready To Wear	-	-	-	-	383	383
Club Monaco	90	181	-	-	-	271
Lauren Dresses	37	320	-	-	-	357
Lauren Ralph Lauren	175	686	-	-	-	861
Leathergoods and Accessories	-	200	-	-	170	370
Polo Jeans Co.	-	-	-	-	51	51
Polo Retail Corporation	-	-	-	-	-	-
Ralph Lauren Childrenswear	361	514	-	-	164	1,039
Ralph Lauren Corporation	619	750	-	-	233	1,602
Ralph Lauren Footwear, Inc.	30	51	-	-	612	693
Ralph Lauren Home Collection	-	113	240	-	-	353
Ralph Lauren Media	-	-	-	-	-	-
Ralph Lauren Wormenswear	73	214	-	-	-	287
Rugby by Ralph Lauren	20	153	-	-	-	173
Total	1,405	3,183	240	-	2,368	7,196

Annual Value of Exports to NAFTA and Non-NAFTA Regions: The provided export shipment data came directly from RLC's ERP system covering the period of April 2012 through October 2012. This data was provided by the RLC Division; we then aligned the data to the appropriate IOR to ensure the data analysis was uniform. After annualizing this data we estimated that RLC exported approximately $23.7 million of product from Beechwood and Eagle Hill. Neither the OHL nor the RL Direct facility currently exports material. The largest exporter was the Home Collection division, which is managed exclusively through the Eagle Hill facility. Table 9 below shows the value of total exports in thousands of dollars and the breakdown of exports' value per importer of record going to NAFTA and Non-NAFTA destinations.

Table 9: Annual Value of Exports (in thousands of dollars)

Importer of Record	Exported NAFTA	Exported Non-NAFTA	Total Exported
Club Monaco	$ 122	$ 113	$ 235
Lauren Ralph Lauren	$ -	$ 318	$ 318
Leathergoods and Accessories	$ 356	$ 1,719	$ 2,075
Ralph Lauren Childrenswear	$ 14	$ 966	$ 979
Ralph Lauren Corporation	$ 659	$ 3,822	$ 4,481
Ralph Lauren Footwear, Inc.	$ 7	$ 380	$ 387
Ralph Lauren Home Collection	$ 7,387	$ 5,786	$ 13,173
Ralph Lauren Wormenswear	$ 577	$ 1,466	$ 2,043
Total	**$ 9,123**	**$ 14,568**	**$ 23,691**

Scrap/Waste Percentage of Annual Entry Value: Based on an interview with RLC, since none of the facilities are expected to manufacture finished goods and the amount of scrap was limited, we assumed 0% scrap/waste.

Average Inbound Duty Rate: Because the product mix fluctuates within each Importer of Record category, the RLC Trade Department recommended an average duty rate of 16% for each IOR category with the exception of Ralph Lauren Footwear, which should be 20%.

Finished Product Duty Rate: This data point will not apply to RLC operations because the company will not utilize a Manufacturing FTZ. Based on conversations with RLC personnel, for this analysis all products are assumed to be imported as finished goods. Hence, average the Inbound Duty Rate equals the Finished Product Duty Rate.

Cost of Capital: We could not obtain RLC's actual cost of capital within the timeline of our research. We assumed a 6% internal rate of interest for key project evaluation.

Average Days of Inventory: We could not obtain RLC data to calculate Inventory Turns or Average Days of Inventory. RLC's Financial Department recommended that we use 10 inventory turns, or 36.5 days of inventory, as an estimate for each DC. Since the OHL Transload facility does not store inventory, we estimated an average of 3 days of inventory to receive, process, and ship product.

Merchandise Processing Fee: RLC's Freight Forwarder provided MPFs for all entries through the Port of LA from July 2012 through September 2012. During this time period RLC paid $355,000 for 1250 entries. We averaged the MPFs to obtain an estimated fee per entry of $284.

Brokerage Fee: The Brokerage fee was estimated to be $125 per entry (Laden, 2008).

Table 10 below combines the financial data for RLC's U.S. facilities broken out by each IOR category.

Table 10: Consolidated Financial Data by Importer of Record Category

Importer of Record	Import Duty Rate	Exported NAFTA	Exported Non-NAFTA	Estimated Annaul Entry Value	Estimated # of Entries
American Living Childrenswear	16%	$ -	$ -	$ 119,085	68
American Living Dresses	16%	$ -	$ -	$ 5,970,541	95
American Living Menswear	16%	$ -	$ -	$ 760,328	76
American Living Womenswear	16%	$ -	$ -	$ 701,926	53
Chaps Childrenswear	16%	$ -	$ -	$ 27,039,995	342
Chaps Dresses	16%	$ -	$ -	$ 9,394,634	122
Chaps Ready To Wear	16%	$ -	$ -	$ 60,108,522	383
Club Monaco	16%	$ 122,335	$ 112,529	$ 42,408,907	271
Lauren Dresses	16%	$ -	$ -	$ 25,249,717	357
Lauren Ralph Lauren	16%	$ -	$ 318,040	$ 180,907,705	861
Leathergoods and Accessories	16%	$ 356,424	$ 1,718,999	$ 52,120,192	370
Polo Jeans Co.	16%	$ -	$ -	$ 2,868,918	51
Polo Retail Corporation	16%	$ -	$ -	$ 153,048,486	-
Ralph Lauren Childrenswear	16%	$ 13,817	$ 965,658	$ 226,233,472	1,039
Ralph Lauren Corporation	16%	$ 659,457	$ 3,821,859	$ 982,779,394	1,602
Ralph Lauren Footwear, Inc.	20%	$ 7,136	$ 379,528	$ 94,735,665	693
Ralph Lauren Home Collection	16%	$ 7,387,078	$ 5,785,618	$ 47,786,634	353
Ralph Lauren Media	16%	$ -	$ -	$ 160,273,654	-
Ralph Lauren Wormenswear	16%	$ 577,022	$ 1,465,531	$ 22,300,030	287
Rugby by Ralph Lauren	16%	$ -	$ -	$ 12,197,729	173
Total		**$ 9,123,268**	**$ 14,567,762**	**$ 2,107,005,534**	**7196**

4.4 Financial Benefits Calculator – Foreign Trade Zone

Because of its operational complexity, the BW model is not deemed a viable option for the scale of RLC's facilities. Thus, we continued the research by exploring the FTZ option for RLC's four facilities.

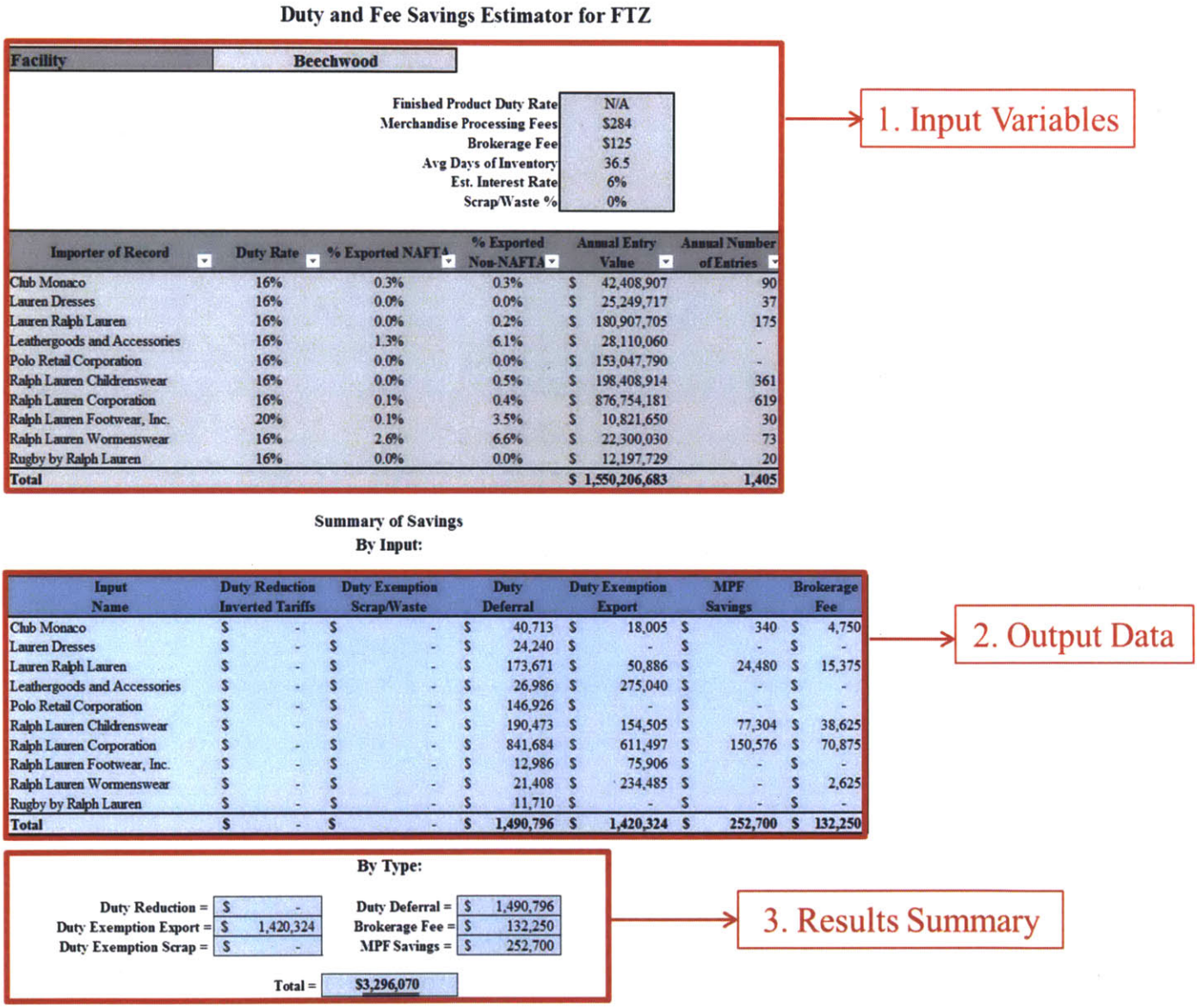
Using the financial data collected in the previous subsection, we developed a Financial Benefit Calculator in Microsoft Excel. This tool calculates and consolidates all the financial benefits for each RLC facility based on the collected and estimated data. Figure 4 shows the three primary sections of the Benefits Calculator. These sections include:

1. Input Variables – the area to input the collected key variables outlined in Section 3.2.1

2. Output Data – this section calculates the savings specific to each IOR using equations 1-6 from section 3.2.1

3. Results Summary – a summary of the total savings for each type of FTZ benefit

A copy of each facility's FTZ Financial Benefits Calculator and a summary of all results can be found in the Appendix.



Duty and Fee Savings Estimator for FTZ

Facility	Beechwood

Finished Product Duty Rate	N/A
Merchandise Processing Fees	$284
Brokerage Fee	$125
Avg Days of Inventory	36.5
Est. Interest Rate	6%
Scrap/Waste %	0%

1. Input Variables

Importer of Record	Duty Rate	% Exported NAFTA	% Exported Non-NAFTA	Annual Entry Value	Annual Number of Entries
Club Monaco	16%	0.3%	0.3%	$ 42,408,907	90
Lauren Dresses	16%	0.0%	0.0%	$ 25,249,717	37
Lauren Ralph Lauren	16%	0.0%	0.2%	$ 180,907,705	175
Leathergoods and Accessories	16%	1.3%	6.1%	$ 28,110,060	-
Polo Retail Corporation	16%	0.0%	0.0%	$ 153,047,790	-
Ralph Lauren Childrenswear	16%	0.0%	0.5%	$ 198,408,914	361
Ralph Lauren Corporation	16%	0.1%	0.4%	$ 876,754,181	619
Ralph Lauren Footwear, Inc.	20%	0.1%	3.5%	$ 10,821,650	30
Ralph Lauren Womenswear	16%	2.6%	6.6%	$ 22,300,030	73
Rugby by Ralph Lauren	16%	0.0%	0.0%	$ 12,197,729	20
Total				$ 1,550,206,683	1,405

Summary of Savings
By Input:

Input Name	Duty Reduction Inverted Tariffs	Duty Exemption Scrap/Waste	Duty Deferral	Duty Exemption Export	MPF Savings	Brokerage Fee
Club Monaco	$ -	$ -	$ 40,713	$ 18,005	$ 340	$ 4,750
Lauren Dresses	$ -	$ -	$ 24,240	$ -	$ -	$ -
Lauren Ralph Lauren	$ -	$ -	$ 173,671	$ 50,886	$ 24,480	$ 15,375
Leathergoods and Accessories	$ -	$ -	$ 26,986	$ 275,040	$ -	$ -
Polo Retail Corporation	$ -	$ -	$ 146,926	$ -	$ -	$ -
Ralph Lauren Childrenswear	$ -	$ -	$ 190,473	$ 154,505	$ 77,304	$ 38,625
Ralph Lauren Corporation	$ -	$ -	$ 841,684	$ 611,497	$ 150,576	$ 70,875
Ralph Lauren Footwear, Inc.	$ -	$ -	$ 12,986	$ 75,906	$ -	$ -
Ralph Lauren Womenswear	$ -	$ -	$ 21,408	$ 234,485	$ -	$ 2,625
Rugby by Ralph Lauren	$ -	$ -	$ 11,710	$ -	$ -	$ -
Total	$ -	$ -	$ 1,490,796	$ 1,420,324	$ 252,700	$ 132,250

2. Output Data

By Type:

Duty Reduction =	$ -	Duty Deferral =	$ 1,490,796
Duty Exemption Export =	$ 1,420,324	Brokerage Fee =	$ 132,250
Duty Exemption Scrap =	$ -	MPF Savings =	$ 252,700
	Total =	$3,296,070	

3. Results Summary

Figure 4: Beechwood - Foreign Trade Zone Financial Benefits Calculator

Figure 5 shows a graph of the financial savings, across each RLC facility. The graph does not include either Duty Reduction or Duty Exemption Scrap as there were no expected savings for any of the analyzed facilities. The Beechwood facility provided the largest financial benefits with approximately $3.3 million in annual savings. The annual savings at this facility are primarily driven by duty deferral, $1.5 million, and by duty exemption of export, $1.4 million. At the OHL Transload facility the main benefits are related to MPF savings. This is in line with the large number of import entries coming into the West Coast of the U.S. from RLC's extensive Asia supply base.

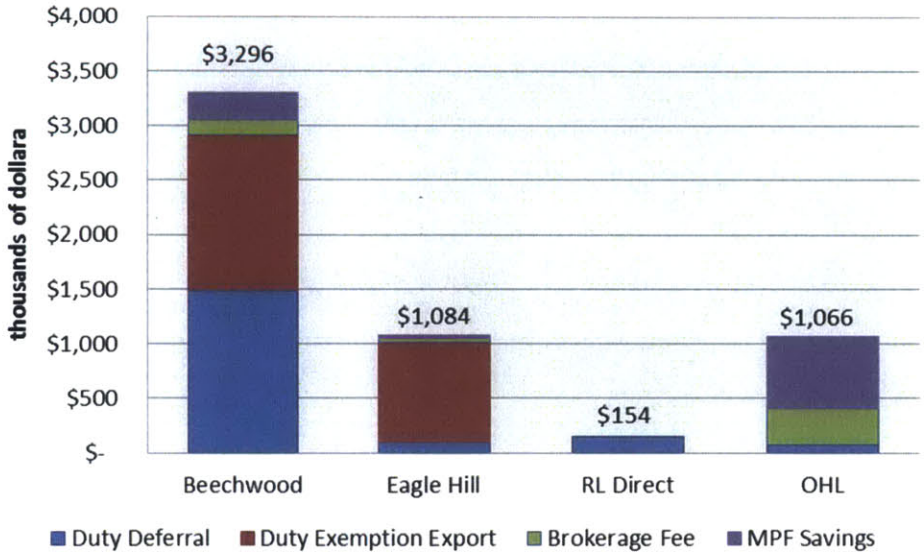


Figure 5: Financial FTZ Benefit Summary

4.5 Cost Benefit Analysis – Foreign Trade Zone

The FTZ benefits of duty exemption export (DEE) can also be achieved without an FTZ through duty drawback, the refund of duty collected on imported material that is subsequently exported. Because the details of the RLC duty drawback process are unknown, we performed two cost-benefit analyses. The first analysis included all duty exemption savings assuming there was no duty drawback. While the second analysis did not include any duty exemptions savings

assuming all savings are retrieved through duty drawback. Depending on the timing of the duty drawback refund there could be some cash-flow savings, but without the necessary information we did not include this factor.

We compared the set-up and administrative costs of each RLC facility to the expected savings of operating out of an FTZ for a three year period. Based on the financial analyst growth expectation of 7% outlined in the Introduction and an estimated discount rate or 10%, we estimated the NPV of each DC as a separate project. Figure 6 provides an example of the Beechwood FTZ Cost Benefits analysis including the estimated benefits, the estimated costs, and the net results. In addition to the net results we calculate the NPV and Discounted ROI for each separate project.

Beechwood - Including Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ 1,420	$ 1,520	$ 1,626	$ 4,566
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ 132	$ 142	$ 151	$ 425
MPF Savings	$ -	$ 253	$ 270	$ 289	$ 812
Duty Deferral	$ -	$ 1,491	$ 1,595	$ 1,707	$ 4,793
Total FTZ Benefits		**$ 3,296**	**$ 3,527**	**$ 3,774**	**$ 10,597**
FTZ Expenses					
Application Fees	$ 8	$ -	$ -	$ -	$ 8
Activation Fees	$ 100	$ -	$ -	$ -	$ 100
Software/IT Integration	$ 100	$ -	$ -	$ -	$ 100
Administration Personnel	$ -	$ 90	$ 90	$ 90	$ 270
Warehousing	$ -	$ -	$ -	$ -	$ -
Software/IT	$ -	$ 25	$ 25	$ 25	$ 75
Operator and Bond Fee	$ -	$ 10	$ 10	$ 10	$ 30
Total FTZ Expenses	**$ 208**	**$ 125**	**$ 125**	**$ 125**	**$ 583**
Net FTZ Benefits	**$ (208)**	**$ 3,171**	**$ 3,402**	**$ 3,649**	**$ 10,014**
NPV @ (10%)	**$ 8,228**				
Discounted ROI	**1587%**				

1. Estimated Benefits

2. Estimated Costs

3. Results

Figure 6: Beechwood – Cost Benefit Analysis Including DEE (in thousands of dollars)

Copies of the Cost Benefit Analysis for each facility for both scenarios, including and excluding duty deferrals, can be found in the Appendix.

The summary of the 3 year NPV and Discounted ROI for each RLC facility is shown in Table 11. Based on feedback from the consultants, they suggest a ROI greater than 200% to implement an FTZ.

Table 11: Results of the Cost Benefit Analysis (in thousands of dollars)

Facility	With Duty Exemption Export		Without Duty Exemption Export	
	NPV	ROI	NPV	ROI
Beechwood	$8,228	1587%	$4,459	860%
Eagle Hill	$2,358	455%	($99)	-19%
RL Direct	($110)	-21%	($110)	-21%
OHL	$2,163	325%	$2,163	325%

4.6 Supply Chain Impacts

One of the Supply Chain impacts of an FTZ that was pointed out to us by consulting experts is the reduction of one to two days of lead time. By avoiding immediate Customs' processing of the merchandise stored in an FTZ, traders can shorten their lead time. However, we were not able to collect any data to substantiate that statement. If obtained, this lead time reduction could reduce both pipeline and safety stock inventory levels for RLC. No other inventory or logistics impacts were determined through our analysis.

5 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the data collected and analyzed, and are contingent on the assumptions outlined in the methodology. These assumptions, especially inventory turns, play a critical role in this analysis. Since we were unable to collect

data regarding inventory turns, RLC suggested we estimate ten inventory turns at each DC. Our results are contingent on the accuracy of this assumption.

5.1 Conclusions

As a result of our data analysis, we came to the following conclusions:

Conclusion 1: FTZs are a feasible option operationally for RLC's large scale distribution facilities.

Based on expert feedback, operating out of an FTZ does not negatively impact operations and in some cases it may reduce the time to clear customs by bypassing the standard customs clearance procedure.

Conclusion 2: BWs are not a feasible option operationally for RLC's large scale distribution facilities.

It is not the cost associated with BW set-up and administration that render it unattractive, but rather the complexity of managing the high level of CBP supervision. Thus, our recommendations consider only FTZ implementation.

Conclusions 3: It is cost beneficial to transform RLC's OHL Transload facility and Beechwood Distribution Center into FTZs.

With discounted ROI's of greater than 300%, these two facilities' financial benefits outweigh the costs to establish and maintain an FTZ status. The total estimated three year Net Benefit NPV of these two facilities is between $10.4 million, including duty exemption through export, and $6.6 million, excluding duty exemption through export.

Conclusion 4: It is not cost beneficial to transform RL Direct into an FTZ.

Since there is little to no import or export activity within the RL Direct, eCommerce, facility there are neither import fees savings nor export duty exemptions. Relying only on the cash-flow impact of duty deferral, the FTZ benefits do not provide sufficient savings to offset implementation costs. The expected 3 year Net Benefits NPV is ($110,000) and the Discounted ROI is (21%).

Conclusion 5: The profitability of transforming Eagle Hill into an FTZ cannot be determined by the information collected.

With the largest savings coming from DEE, approximately $1 million, the two scenarios of including and excluding DEE, provide conflicting results. RLC's existing duty drawbacks affect the level of expected DDE. Without the duty exemption the 3 year discounted ROI greatly reduces from 455% to (19%), making this a negative investment.

5.2 Recommendations

As a result of our conclusions, we recommend the following actions:

Recommendation 1: OHL Transload should be the first facility transformed into an FTZ

Following from Conclusion 3, the OHL Transload facility should be transformed into an FTZ. Though OHL Transload does not provide the most financial savings, with $2.2 million three year NPV Net Benefits and 325% discounted ROI, its FTZ status will directly impact the savings of the other facilities. Merchandise shipped through the West Coast moves first through OHL Transload before reaching the North Carolina DCs. Goods cannot move from a non-FTZ facility

to an FTZ facility without incurring duties and import fees. Implementing another DC into an FTZ prior to OHL Transload's transformation would not allow the destination DC to take advantage of all FTZ savings.

Recommendation 2: Beechwood should be implemented into an FTZ following OHL Transload.

Following from Conclusion 3, in addition to being cost beneficial, the Beechwood DC receives approximately 55% of its total imported merchandise value through the OHL Transload facility. Thus, to achieve the expected savings it is critical that the merchandise is transported in-bond from an FTZ West Coast facility to Beechwood. An in-bond shipment allows merchandise to be transported between FTZs without entering U.S. customs territory.

The Beechwood facility provides the greatest financial benefits and is impacted the most by the duty drawback process. The estimated savings for Duty Deferral through Export for this facility is $1.4 million. If RLC is currently receiving duty drawbacks for this entire amount, the expected total annual savings will reduce from $3.3 million to $1.9 million. Though the 3 year discounted ROI will reduce from approximately 1600% to 860%, the FTZ savings still justify transitioning to an FTZ. These large savings align with expectations since Beechwood is the largest facility with the highest number of entries, and the largest average inventory value.

Recommendation 3: A follow up analysis should be performed if RLC decides to import to or export from RL Direct.

Following Conclusion 4, transforming RL Direct is not beneficial at this time. The lack of direct imports to and exports from the facility lead to no savings from duty deferral and duty exemption. However, a strategic change in the use of the facility would change the results of our

cost benefit analysis. In this case, a follow up analysis utilizing the FTZ Benefit Calculator and the Cost Benefit Model should be performed.

Recommendation 4: The duty drawback process, if any, should be reviewed to determine the cost benefit of transitioning Eagle Hill to an FTZ.

Following from Conclusion 5, the analysis is inconclusive because we could not collect relevant data to determine the actual effects of the existing duty drawbacks on Eagle Hill's expected FTZ savings. With limited benefits coming from the other savings areas, RLC should review the duty drawback details and the expected long term strategy for exports from Eagle Hill. If RLC expects the future non-NAFTA export rate to substantially decrease or is currently receiving similar financial benefits from duty drawbacks, this facility may not benefit from the transition to an FTZ. If RLC expects this export rate to continue or increase and the duty drawback process is not refunding the entire duty exemption savings, implementing this facility as an FTZ should provide sufficient savings. Additionally, we were asked to apply averaged inventory turns of 10, but given the lower inventory turns in the RLC Home Division operating in Eagle Hill, higher duty deferral savings are expected.

5.3 Additional Opportunities

In addition to the conclusions and recommendations we derived from the cost benefit analysis, we provide suggestions for further consideration. Though we were unable to collect data regarding these proposals, we believe more research could display additional FTZ benefits.

5.3.1 Reduce the Number of Importer of Records

Currently RLC is importing under 20 different IORs. Consolidating the number of IORs coming into each facility would provide further potential savings. As an example of multiple IORs, there

are currently four American Living IORs: Childrenswear, Dresses, Menswear, and Womenswear. Because FTZs allow weekly consolidated entries by each IOR, reducing the number of IORs will result in potential annual savings of $25,220 per IOR for each facility. Both Beechwood and OHL Transload import with over 10 different IORs, therefore reducing the number of IORs could result in annual savings of up to $225,000 per facility.

5.3.2 Import Air Shipment Entries through FTZ

This analysis focused on import ocean shipments coming into RLCs U.S. facilities and did not take air shipments into account. Data received at the end of this analysis showed that RLC had 12,843 air shipment import entries in 2012, of which 95% of these shipments entered through New York's JFK airport. This number of air shipment entries is substantially higher than the roughly 7,500 2012 ocean shipment entries. If entered through an FTZ these entries could provide additional significant MPF and Brokerage Fee savings. Since products can arrive at any U.S. Port of Entry and be shipped in-bond to an FTZ, these air shipment entries should be further explored to determine if they can be routed through an FTZ facility.

5.3.3 Consolidate West Coast Operations

In addition to the OHL Transload facility, RLC also has two other facilities in the LA area, located in Chino, CA and Buena Park, CA. The Chino facility primarily supports brands such as RL Mens, Chaps, and RL Childrenswear, while the Buena Park facility supports the American Living brand. To increase the FTZ benefits on the west coast RLC, depending on the long term brand strategy, RLC could look into consolidating some or all of the operations into FTZ facilities. These two locations combined accounted for over 2,300 ocean container import

entries in 2012. This is approximately one third of RLC's total number of import entries, while the entry value was only 15% of the total value. If combined with the entries through OHL, Chino and Buena Park's entries could provide additional annual savings of approximately $400,000 on MPFs and approximately $200,000 on Brokerage fees. Utilizing the FTZ Benefits calculator and Cost Benefit Model, RLC could investigate if it is beneficial to convert either of these two facilities to stand-alone FTZ locations or to a single consolidated LA FTZ facility.

5.3.4 Handling Reverse Logistics

RLC handles returned merchandise in their current Greensboro facilities. Reverse logistics cannot be handled within an FTZ activated area. Once merchandise leaves the FTZ it is considered officially imported into the country of destination and the appropriate duties apply and cannot be returned to an FTZ area. This is commonly handled by activating only a portion of the facility as an FTZ, leaving the remaining area as a non-FTZ area for other daily operations such as reverse logistics. The FTZ experts recommended including the whole footage of each facility in the FTZ application but only activate the portion specifically needed to operate the FTZ activities. The part that is left not activated would be used for handling returned merchandise.

5.3.5 Canada Network

To determine the significance of having inventory-holding FTZ locations in the North American region, we looked at the current RLC distribution network in Canada. RLC's Toronto DC receives material directly from overseas suppliers, and accounts for 1% of total sales in North America. To take advantage of the savings related to MPFs, brokerage fees, and duty deferral by

using a U.S. FTZ, we suggest further analysis and a possible network change. To consolidate the Canadian volume, thus benefiting from U.S. FTZs, we suggest exploring four potential options: Direct Transload, Hub and Spoke, Customer Direct Shipment, and Customer Drop Shipment. A major financial impact to these options is the dutiable value of the goods at the time of export, on which the customs duties will be paid. Given the high margins associated with luxury industries, the difference between the duties paid on retail price versus transfer price could be significant.

When exploring the four options to support RLC Canada through a U.S. FTZ the following special NAFTA provisions for duty deferral programs should be taken into consideration. This provision applies to goods that are imported into a FTZ with the U.S. and Canada, and then subsequently exported to other NAFTA countries. At the time of export goods from an FTZ are treated as if withdrawn for domestic consumption, thus subject to the applicable duties. These duties may be reduced or waived by the amount up to the total customs and duties paid to the exported NAFTA country (United States. Department of Homeland Security, n.d.). Further details can be found from the U.S. Custom and Border Protection FTZ Manual.

Below are the four suggested options to support RLC Canada through a U.S. FTZ. We believe these options could be very beneficial to RLC's FTZ strategy, but were unable to collect the necessary data to complete the analysis. Therefore we only outline the options for future research. Each option should be reviewed thoroughly to determine the additional costs and the expected FTZ savings before finalizing a recommendation.

Direct Transload: For orders bound to Canada, consolidating shipments through the OHL Transload facility, instead of directly to a Canadian port, would allow RLC to take advantage of additional FTZ savings related to MPFs, and brokerage fees. This option would involve the least

amount of change by allowing RLC to utilize the existing infrastructure and only requiring west coast Canadian shipments to be redirected through the OHL Transload facility.

Hub and Spoke: In this option Canadian bound material would be consolidated and stored in a RLC inventory holding DC (Hub) until replenishment to the RLC Canadian facility (Spoke) is required. Based on the number and volume of shipments, in addition to RLCs supply chain strategy, the Canadian facility could either be an inventory holding DC or a pull point, a non-inventory holding location, where consolidated shipments from the U.S. would be deconsolidated for customer delivery. This option would allow FTZ benefits of MPFS, brokerage fee, and duty deferral in addition to other supply chain benefits of inventory flexibility from risk pulling and postponing the replenishment decision into Canada.

Customer Direct Shipment: This option suggests consolidating U.S. and Canadian shipments from Asia and warehousing them in Greensboro, NC, then exporting directly to RLC Canadian customers. If Canadian retail customers order merchandise directly from U.S., the dutiable value of the goods would be the retail price at which the merchandise is sold to the Canadian retailer. This option would not require any infrastructure in Canada and allow inventory flexibility through risk pooling, but it would substantially increase the required duties based on the retail price.

Customer Drop Shipment: Figure 7 shows the difference between the invoice flow (green) and the physical flow of goods (blue) in the case of customer drop shipment. To avoid paying duties on high retail value, RLC could use a transfer price for shipments to Canada. A RLC Canada entity could receive orders from Canadian retail customers then RLC Canada would order from RLC USA in Greensboro, NC. RLC USA would send an invoice to RLC Canada but drop-ship

the merchandise from the Greensboro FTZs directly to the Canadian retailers. This option minimizes the increase in duties while eliminating the need for warehousing in Canada.

Figure 7: Customer Drop Shipment Example

In this scenario duties would be collected on the transfer price between the U.S. and Canadian RLC entities, which would be lower than the retail price.

5.4 Final Remarks

This thesis summarizes research conducted to compare FTZs and BWs for RLC NA operations. To complete this research we compared the financial benefits, as they pertain to RLC NA operations, against the facility specific set-up and management costs, as well as the operational efficiency, for FTZs and BWs. This research can be utilized by RLC to make strategic

operational decisions and to determine a roadmap to possible FTZ or BW implementations. In addition to the direct benefit to RLC, this research may be useful as a reference for other companies that face similar challenges and wish to understand the benefits of FTZs and BWs.

The opportunity for RLC to implement and utilize an FTZ is dependent on each facility operations and strategic plans. The facility's inbound, outbound, and internal operations influence FTZ benefits. Any major strategic change in the operations of the facilities in consideration would require re-evaluation of the FTZ implementation initiative. Increased exports, inventory turns, value, type, and origin of the merchandise are some of the critical factors for fluctuations in FTZ-related savings. The recommendations and suggestions listed above are dependent on the data gathered and analyzed regarding the current operations in the Beechwood, OHL, Eagle Hill, and RL Direct facilities, and contingent on our working assumptions.

APPENDIX

Figures 8 through 10 are discussed in Section 4.4 and Figures 11 through 17 are discussed in Section 4.5.

Duty and Fee Savings Estimator for FTZ

Facility	Eagle Hill

Finished Product Duty Rate	N/A
Merchandise Processing Fees	$284
Brokerage Fee	$125
Avg Days of Inventory	36.5
Est. Interest Rate	12%
Scrap/Waste %	0%

Importer of Record	Duty Rate	% Exported NAFTA	% Exported Non-NAFTA	Annual Entry Value	Annual Number of Entries
Ralph Lauren Home Collection	16%	15.5%	12.1%	$ 47,786,634	240
Total				**$ 47,786,634**	**240**

Summary of Savings

By Input:

Input Name	Duty Reduction Inverted Tariffs	Duty Exemption Scrap/Waste	Duty Deferral	Duty Exemption Export	MPF Savings	Brokerage Fee
Ralph Lauren Home Collection	$ -	$ -	$ 91,750	$ 925,699	$ 42,940	$ 23,500
Total	**$ -**	**$ -**	**$ 91,750**	**$ 925,699**	**$ 42,940**	**$ 23,500**

By Type:

Duty Reduction =	$ -	Duty Deferral =	$ 91,750
Duty Exemption Export =	$ 925,699	Brokerage Fee =	$ 23,500
Duty Exemption Scrap/Waste =	$ -	MPF Savings =	$ 42,940

Total = **$1,083,889**

Figure 8: Eagle Hill - Foreign Trade Zone Financial Benefits Calculator

Duty and Fee Savings Estimator for FTZ

Facility	Direct

Finished Product Duty Rate	N/A
Merchandise Processing Fees	$284
Brokerage Fee	$125
Avg Days of Inventory	36.5
Est. Interest Rate	6%
Scrap/Waste %	0%

Importer of Record	Duty Rate	% Exported NAFTA	% Exported Non-NAFTA	Annual Entry Value	Annual Number of Entries
Ralph Lauren Media	16%	0	0	$ 160,273,654	-
Total				**$ 160,273,654**	-

Summary of Savings

By Input:

Input Name	Duty Reduction Inverted Tariffs	Duty Exemption Scrap/Waste	Duty Deferral	Duty Exemption Export	MPF Savings	Brokerage Fee
Ralph Lauren Media	$ -	$ -	$ 153,863	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ 153,863**	**$ -**	**$ -**	**$ -**

By Type:

Duty Reduction =	$ -	Duty Deferral =	$ 153,863
Duty Exemption Export =	$ -	Brokerage Fee =	$ -
Duty Exemption Scrap/Waste =	$ -	MPF Savings =	$ -

Total = **$153,863**

Figure 9: RL Direct - Foreign Trade Zone Financial Benefits Calculator

Duty and Fee Savings Estimator for FTZ

Facility	OHL Transload

Finished Product Duty Rate	N/A
Merchandise Processing Fees	$284
Brokerage Fee	$125
Avg Days of Inventory	3.0
Est. Interest Rate	6%
Scrap/Waste %	0%

Importer of Record	Duty Rate	% Exported NAFTA	% Exported Non-NAFTA	Annual Entry Value	Annual Number of Entries
Club Monaco	16%	0.0%	0.0%	$ 28,324,768	181
Lauren Dresses	16%	0.0%	0.0%	$ 22,632,800	320
Lauren Ralph Lauren	16%	0.0%	0.0%	$ 144,137,846	686
Leathergoods and Accessories	16%	0.0%	0.0%	$ 28,110,060	200
Ralph Lauren Childrenswear	16%	0.0%	0.0%	$ 119,804,214	514
Ralph Lauren Corporation	16%	0.0%	0.0%	$ 497,016,075	750
Ralph Lauren Footwear, Inc.	16%	0.0%	0.0%	$ 6,720,539	51
Ralph Lauren Home Collection	16%	0.0%	0.0%	$ 15,297,138	113
Ralph Lauren Womenswear	16%	0.0%	0.0%	$ 16,627,897	214
Rugby by Ralph Lauren	16%	0.0%	0.0%	$ 10,787,587	153
Total				**$ 889,458,923**	**3183**

Summary of Savings

By Input:

Input Name	Duty Reduction Inverted Tariffs	Duty Exemption Scrap/Waste	Duty Deferral	Duty Exemption Export	MPF Savings	Brokerage Fee
Club Monaco	$ -	$ -	$ 2,235	$ -	$ 26,184	$ 16,125
Lauren Dresses	$ -	$ -	$ 1,786	$ -	$ 65,660	$ 33,500
Lauren Ralph Lauren	$ -	$ -	$ 11,373	$ -	$ 169,604	$ 79,250
Leathergoods and Accessories	$ -	$ -	$ 2,218	$ -	$ 31,580	$ 18,500
Ralph Lauren Childrenswear	$ -	$ -	$ 9,453	$ -	$ 120,867	$ 57,799
Ralph Lauren Corporation	$ -	$ -	$ 39,217	$ -	$ 187,919	$ 87,311
Ralph Lauren Footwear, Inc.	$ -	$ -	$ 530	$ -	$ -	$ -
Ralph Lauren Home Collection	$ -	$ -	$ 1,207	$ -	$ 6,872	$ 7,625
Ralph Lauren Womenswear	$ -	$ -	$ 1,312	$ -	$ 35,556	$ 20,250
Rugby by Ralph Lauren	$ -	$ -	$ 851	$ -	$ 18,232	$ 12,625
Total	**$ -**	**$ -**	**$ 70,182**	**$ -**	**$ 662,474**	**$ 332,985**

By Type:

Duty Reduction =	$ -	Duty Deferral =	$ 70,182
Duty Exemption Export =	$ -	Brokerage Fee =	$ 332,985
Duty Exemption Scrap/Waste =	$ -	MPF Savings =	$ 662,474

Total = $1,065,642

Figure 10: OHL Transload - Foreign Trade Zone Financial Benefits Calculator

Beechwood - Excluding Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ -	$ -	$ -	$ -
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ 132	$ 142	$ 151	$ 425
MPF Savings	$ -	$ 253	$ 270	$ 289	$ 812
Duty Deferral	$ -	$ 1,491	$ 1,595	$ 1,707	$ 4,793
Total FTZ Benefits	**0**	**$ 1,876**	**$ 2,007**	**$ 2,148**	**$ 6,030**
FTZ Expenses					
Application Fees	$ 8	$ -	$ -	$ -	$ 8
Activation Fees	$ 100	$ -	$ -	$ -	$ 100
Software/IT Integration	$ 100	$ -	$ -	$ -	$ 100
Administration Personnel	$ -	$ 90	$ 90	$ 90	$ 270
Warehousing	$ -	$ -	$ -	$ -	$ -
Software/IT	$ -	$ 25	$ 25	$ 25	$ 75
Operator and Bond Fee	$ -	$ 10	$ 10	$ 10	$ 30
Total FTZ Expenses	**$ 208**	**$ 125**	**$ 125**	**$ 125**	**$ 583**
Net FTZ Benefits	**$ (208)**	**$ 1,751**	**$ 1,882**	**$ 2,023**	**$ 5,448**

NPV @ (10%)	**$ 4,459**
Discounted ROI	**860%**

Figure 11: Beechwood – Cost Benefit Analysis Excluding DEE (in thousands of dollars)

Eagle Hill - Including Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ 926	$ 990	$ 1,060	$ 2,976
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ 24	$ 25	$ 27	$ 76
MPF Savings	$ -	$ 43	$ 46	$ 49	$ 138
Duty Deferral	$ -	$ 92	$ 98	$ 105	$ 295
Total FTZ Benefits	**0**	**$ 1,084**	**$ 1,160**	**$ 1,241**	**$ 3,485**
FTZ Expenses					
Application Fees	$ 8	$ -	$ -	$ -	$ 8
Activation Fees	$ 100	$ -	$ -	$ -	$ 100
Software/IT Integration	$ 100	$ -	$ -	$ -	$ 100
Administration Personnel	$ -	$ 90	$ 90	$ 90	$ 270
Warehousing	$ -	$ -	$ -	$ -	$ -
Software/IT	$ -	$ 25	$ 25	$ 25	$ 75
Operator and Bond Fee	$ -	$ 10	$ 10	$ 10	$ 30
Total FTZ Expenses	**$ 208**	**$ 125**	**$ 125**	**$ 125**	**$ 583**
Net FTZ Benefits	**$ (208)**	**$ 959**	**$ 1,035**	**$ 1,116**	**$ 2,902**

NPV @ (10%)	**$ 2,358**
Discounted ROI	**455%**

Figure 12: Eagle Hill – Cost Benefit Analysis Including DEE (in thousands of dollars)

Eagle Hill - Excluding Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ -	$ -	$ -	$ -
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ 24	$ 25	$ 27	$ 76
MPF Savings	$ -	$ 43	$ 46	$ 49	$ 138
Duty Deferral	$ -	$ 92	$ 98	$ 105	$ 295
Total FTZ Benefits	**0**	**$ 158**	**$ 169**	**$ 181**	**$ 509**
FTZ Expenses					
Application Fees	$ 8	$ -	$ -	$ -	$ 8
Activation Fees	$ 100	$ -	$ -	$ -	$ 100
Software/IT Integration	$ 100	$ -	$ -	$ -	$ 100
Administration Personnel	$ -	$ 90	$ 90	$ 90	$ 270
Warehousing	$ -	$ -	$ -	$ -	$ -
Software/IT	$ -	$ 25	$ 25	$ 25	$ 75
Operator and Bond Fee	$ -	$ 10	$ 10	$ 10	$ 30
Total FTZ Expenses	**$ 208**	**$ 125**	**$ 125**	**$ 125**	**$ 583**
Net FTZ Benefits	**$ (208)**	**$ 33**	**$ 44**	**$ 56**	**$ (74)**

NPV @ (10%)	**$ (99)**
Discounted ROI	**-19%**

Figure 13: Eagle Hill – Cost Benefit Analysis Excluding DEE (in thousands of dollars)

RL Direct - Including Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ -	$ -	$ -	$ -
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ -	$ -	$ -	$ -
MPF Savings	$ -	$ -	$ -	$ -	$ -
Duty Deferral	$ -	$ 154	$ 165	$ 176	$ 495
Total FTZ Benefits	**0**	**$ 154**	**$ 165**	**$ 176**	**$ 495**
FTZ Expenses					
Application Fees	$ 8	$ -	$ -	$ -	$ 8
Activation Fees	$ 100	$ -	$ -	$ -	$ 100
Software/IT Integration	$ 100	$ -	$ -	$ -	$ 100
Administration Personnel	$ -	$ 90	$ 90	$ 90	$ 270
Warehousing	$ -	$ -	$ -	$ -	$ -
Software/IT	$ -	$ 25	$ 25	$ 25	$ 75
Operator and Bond Fee	$ -	$ 10	$ 10	$ 10	$ 30
Total FTZ Expenses	**$ 208**	**$ 125**	**$ 125**	**$ 125**	**$ 583**
Net FTZ Benefits	**$ (208)**	**$ 29**	**$ 40**	**$ 51**	**$ (88)**

NPV @ (10%)	**$ (110)**
Discounted ROI	**-21%**

Figure 14: RL Direct – Cost Benefit Analysis Including DEE (in thousands of dollars)

RL Direct - Excluding Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ -	$ -	$ -	$ -
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ -	$ -	$ -	$ -
MPF Savings	$ -	$ -	$ -	$ -	$ -
Duty Deferral	$ -	$ 154	$ 165	$ 176	$ 495
Total FTZ Benefits	**0**	**$ 154**	**$ 165**	**$ 176**	**$ 495**
FTZ Expenses					
Application Fees	$ 8	$ -	$ -	$ -	$ 8
Activation Fees	$ 100	$ -	$ -	$ -	$ 100
Software/IT Integration	$ 100	$ -	$ -	$ -	$ 100
Administration Personnel	$ -	$ 90	$ 90	$ 90	$ 270
Warehousing	$ -	$ -	$ -	$ -	$ -
Software/IT	$ -	$ 25	$ 25	$ 25	$ 75
Operator and Bond Fee	$ -	$ 10	$ 10	$ 10	$ 30
Total FTZ Expenses	**$ 208**	**$ 125**	**$ 125**	**$ 125**	**$ 583**
Net FTZ Benefits	**$ (208)**	**$ 29**	**$ 40**	**$ 51**	**$ (88)**

NPV @ (10%)	**$ (110)**
Discounted ROI	**-21%**

Figure 15: RL Direct – Cost Benefit Analysis Excluding DEE (in thousands of dollars)

OHL Transload - Including Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ -	$ -	$ -	$ -
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ 333	$ 356	$ 381	$ 1,071
MPF Savings	$ -	$ 662	$ 709	$ 758	$ 2,130
Duty Deferral	$ -	$ 70	$ 75	$ 80	$ 226
Total FTZ Benefits	**0**	**$ 1,066**	**$ 1,140**	**$ 1,220**	**$ 3,426**
FTZ Expenses					
Application Fees	$ -	$ -	$ -	$ -	$ -
Activation Fees	$ 31	$ -	$ -	$ -	$ 31
Software/IT Integration	$ 69	$ -	$ -	$ -	$ 69
Administration Personnel	$ -	$ 94	$ 94	$ 94	$ 283
Warehousing	$ -	$ 120	$ 120	$ 120	$ 360
Software/IT	$ -	$ 7	$ 7	$ 7	$ 22
Operator and Bond Fee	$ -	$ 6	$ 6	$ 6	$ 17
Total FTZ Expenses	**$ 100**	**$ 227**	**$ 227**	**$ 227**	**$ 781**
Net FTZ Benefits	**$ (100)**	**$ 839**	**$ 913**	**$ 993**	**$ 2,645**

NPV @ (10%)	**$ 2,163**
Discounted ROI	**325%**

Figure 16: OHL Transload – Cost Benefit Analysis Including DEE (in thousands of dollars)

OHL Transload - Excluding Duty Exemption Export

Growth Rate 7%
Discount Rate 10%

FTZ Benefits and Expenses by Type	Year 0	Year 1	Year 2	Year 3	Total
FTZ Financial Benefits					
Inverted Taxes	$ -	$ -	$ -	$ -	$ -
Duty Exemption Export	$ -	$ -	$ -	$ -	$ -
Duty Exemption Scrap	$ -	$ -	$ -	$ -	$ -
Brokerage Fee Savings	$ -	$ 333	$ 356	$ 381	$ 1,071
MPF Savings	$ -	$ 662	$ 709	$ 758	$ 2,130
Duty Deferral	$ -	$ 70	$ 75	$ 80	$ 226
Total FTZ Benefits	**0**	**$ 1,066**	**$ 1,140**	**$ 1,220**	**$ 3,426**
FTZ Expenses					
Application Fees	$ -	$ -	$ -	$ -	$ -
Activation Fees	$ 31	$ -	$ -	$ -	$ 31
Software/IT Integration	$ 69	$ -	$ -	$ -	$ 69
Administration Personnel	$ -	$ 94	$ 94	$ 94	$ 283
Warehousing	$ -	$ 120	$ 120	$ 120	$ 360
Software/IT	$ -	$ 7	$ 7	$ 7	$ 22
Operator and Bond Fee	$ -	$ 6	$ 6	$ 6	$ 17
Total FTZ Expenses	**$ 100**	**$ 227**	**$ 227**	**$ 227**	**$ 781**
Net FTZ Benefits	**$ (100)**	**$ 839**	**$ 913**	**$ 993**	**$ 2,645**

NPV @ (10%)	**$ 2,163**
Discounted ROI	**325%**

Figure 17: OHL Transload – Cost Benefit Analysis Excluding DEE (in thousands of dollars)

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